303 . 750

Work Order ID 90132

September-13-12 1:43:29 PM

90132

Item ID:	D2915	**Accept**	*N900040100*
Revision ID:		**Setup Start**	*NS1*
Item Name:	Bushing	**Stop**	*NS2*
Start Date:	9/12/12	**Start Qty:** 12.00	*12*
Required Date:	10/12/12	**Req'd Qty:** 12.00	*12*
Cust Item ID:			
Customer:			
Reference:			

Approvals: **Process Plan:** MLJ **Date:** 12-09-17 **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Run Start *NR1* **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D2915	Rev A

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100 *100* Hardinge Hardinge CNC Lathe Small	Hardinge CNC LATHE SMALL **Memo** Machine as per folio FA231 Deburr as required, NO sharp edges	0.00 0.00	SS 12/12/15			12	Ø		
110 *110* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB **Memo**	0.00 0.00	SS 12/12/15			12	Ø		
120 *120* QC Quality Control	QC8- Inspect parts - second check **Memo**	0.00 0.00	12.2.15			12	Ø		DAS 04 9-89

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	**General**			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 90132

September-13-12 1:43:29 PM

90132

Item ID:	D2915		**Accept**	*N900040100*	
Revision ID:					
Item Name:	Bushing				
Start Date:	9/12/12	**Start Qty:** 12.00	*12*	**Cust Item ID:**	
Required Date:	10/12/12	**Req'd Qty:** 12.00	*12*	**Customer:**	
Reference:					

Setup Start *NS1* Stop *NS2*

Run Start *NR1* Stop *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging	Identify as per dwg & Stock Location: ST031	0.00							
Packaging	**Memo**	0.00				12x			[signature] 12-12-17
140 *140* QC	QC21- Final Inspection - Work Order Release	0.00							
Quality Control	**Memo**	0.00						12/12/18	[signature] MCS 12-12-18

DQA: ________ Date: ______________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
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☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other ________
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	________	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	________	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	________	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Picklist Print

September-13-12 1:43:28 PM

Work Order ID: 90132

Parent Item: D2915

Parent Item Name: Bushing

Start Date: 9/12/12 **Required Date:** 10/12/12

Start Qty: 12.00 **Required Qty:** 12.00

Comments: IPP C02.05.03Machined in houseNG

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R0.750 303 Round Bar 0.750		Purchased	No			100	f	519.1985	**0.1292**	**1.632** 1.667'		12/12/12	

Location	Loc Qty	Loc Code	
MAT028	519.1985		
117328	13.242		
117798	4.004		
118509	4.08		
119346	0.645		
120145	10.566		
121070	1.1		
121157	0.187		
122166	0.83		
122386	8.5445		
122734	476		1.667'

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

	DISPOSITION	AGAINST DEPARTMENT/PROCESS			
Work Order: ____________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Part No. ____________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
NCR No. ____________	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
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☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other ____________
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	____________	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	____________	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	____________	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

DART AEROSPACE LTD	Work Order:	90132
Description: Bushing	Part Number:	D2915
Inspection Dwg: D2915 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

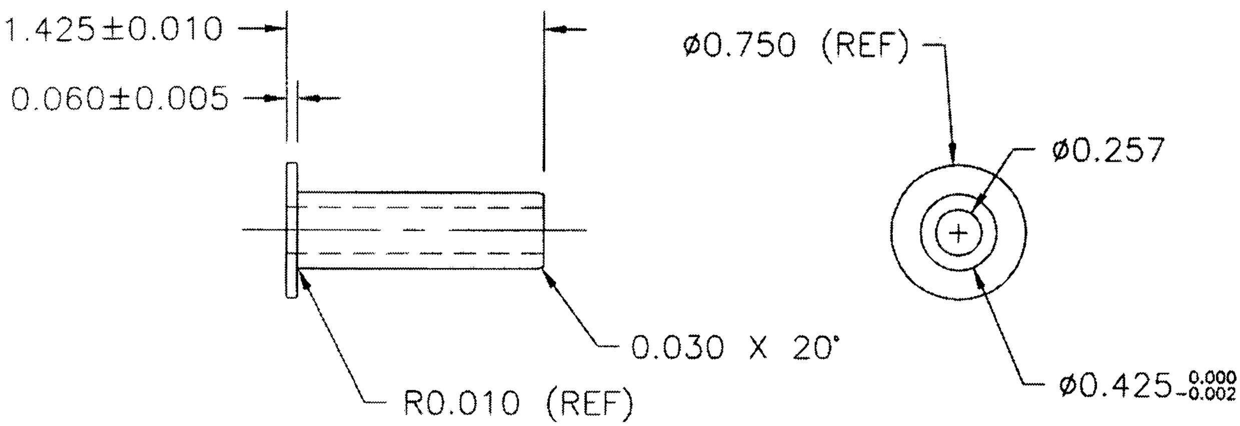
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.425	+/-0.010	1.427	✓		SL08	Vern
0.060	+/-0.005	.062	✓		↓	
R0.010	+/-0.010	.015	✓		↓	
0.030 x 20°	+/-0.010	.030 X 20°	✓		↓	
Ø0.750	+/-0.005	.747	✓		↓	
Ø0.257	+0.005/-0.000	.258	✓		↓	
Ø0.425	+0.000/-0.002	.424	✓		SL02	Mic

Measured by:	[signature]	Audited by:	DAS 04	Prototype Approval:	N/A
Date:	12/12/15	Date:	12.12.15	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.05.06	New Issue	KJ/RF [signature]	[signature]

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2915 REV. A SHEET 1 OF 1
DATE 99.09.28		TITLE BUSHING SCALE 1:1
A	99.09.28	NEW ISSUE

RELEASED 99.10.04 DS



SHOP COPY
RETURN TO ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 9.0132 MLJ
12-09-17

MATERIAL: AISI 303 – 0.75 DIA STOCK
BREAK ALL SHARP CORNERS 0.010 MAX
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
ALL DIMENSIONS ARE IN INCHES